

# Galina Georgiy Hovhannisyan

✉ galinahovhannisyan@ysu.am



**Faculty of Biology**  
Chair of Genetics and Cytology  
Professor

## Education

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<b>Institution</b>	YSU
<b>Faculty</b>	Faculty of Biology
<b>Date</b>	1978 - 1983
<b>Degree name</b>	Qualified specialist

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## Scientific Rank/degree

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<b>Institution</b>	YSU
<b>Date</b>	2013
<b>Degree name</b>	Doctor
<b>Specialty</b>	Biological sciences
<b>Research Topic</b>	Localization of DNA and chromosomal damage in human cells

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<b>Institution</b>	YSU
<b>Date</b>	1990
<b>Degree name</b>	Candidate
<b>Specialty</b>	Biological sciences
<b>Scientific Supervisor</b>	Rouben Aroutiounian
<b>Research Topic</b>	The study of anticlastogens under the action of chemical mutagens in the cells of allergic patients and healthy donors

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## Language skills

Հայերեն Русский English

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## Work experience

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<b>Institution</b>	YSU, Faculty of Biology
<b>Period of time</b>	2020 till now
<b>Rank/degree</b>	Professor

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## Scientific interests

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- genetic toxicology, molecular cytogenetics, environmental genetics, mutagenesis, antimutagenesis

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## Membership

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<b>Institution</b>	YSU Faculty of Biology Scientific Council
<b>Period of time</b>	2019 till now

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<b>Institution</b>	042 Specialized Council at Institute of Molecular Biology of the National Academy of Sciences of the Republic of Armenia on Biochemistry
<b>Period of time</b>	2022 till now

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<b>Institution</b>	051 Specialized Council at YSU on Biophysics
<b>Period of time</b>	2019 till now

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## State awards and honorary titles

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2019 YSU Gold Medal

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## Publications

*Article*

**Changes in Telomere Length in Leukocytes and Leukemic Cells after Ultrashort Electron Beam Radiation**

Tigran Harutyunyan, Anzhela Sargsyan, Lily Kalashyan, Hovhannes Igityan, Bagrat Grigoryan, Hakob Davtyan, Rouben Aroutiounian, Thomas Liehr, Galina Hovhannisyan  
International Journal of Molecular Sciences 2024 6709

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*Article*

**CELL-FREE MITOCHONDRIAL DNA IN DOXORUBICIN-TREATED KCL22 AND K562 CELL LINES**

Tigran A. Harutyunyan, Anzhela A. Sargsyan, Lily A. Kalashyan, Hovhannes A. Igityan, Rouben M. Aroutiounian, Galina G. Hovhannisyan  
Proceedings of the YSU B: Chemical and Biological Sciences 2024 9-16

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*Article*

**DNA Damage in Moderate and Severe COVID-19 Cases: Relation to Demographic, Clinical, and Laboratory Parameters**

Tigran Harutyunyan, Anzhela Sargsyan, Lily Kalashyan, Naira Stepanyan, Rouben Aroutiounian, Thomas Liehr, Galina Hovhannisyan  
International Journal of Molecular Sciences 2024 10293

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*Article*

**EVALUATION OF GENOTOXIC EFFECTS IN COVID-19 PATIENTS AS A POTENTIAL MARKER OF VIRUS-HOST ADAPTATION**

Tigran Harutyunyan, Anzhela Sargsyan, Nara Stepanyan, Galina Hovhannisyan, Rouben Aroutiounian

*Article*

**The Diagnostic, Prognostic, and Therapeutic Potential of Cell-Free DNA with a Special Focus on COVID-19 and Other Viral Infections**

Galina Hovhannisyanyan, Tigran Harutyunyan, Rouben Aroutiounian, Thomas Liehr

International Journal of Molecular Sciences 2023 14163

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*Article*

**Application of land snail *Helix lucorum* for evaluation of genotoxicity of soil pollution**

Anzhela Sargsyan, Galina Hovhannisyanyan, Anna Simonyan, Marine Arakelyan, Meri Arzumanyan,

Rouben Aroutiounian

MUTATION RESEARCH - GENETIC TOXICOLOGY AND ENVIRONMENTAL MUTAGENESIS 2022 503500

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*Manual*

**Cytogenomics: Approaches for studying epigenetic aspects of the human genome**

Harutyunyan Tigran, Hovhannisyanyan Galina

2021 54

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*Article*

**IDENTIFICATION OF CYTOGENETICALLY VISIBLE mtDNA IN INTERPHASE NUCLEI OF HUMAN BLOOD LYMPHOCYTES EXPOSED TO DOXORUBICIN**

T. A. HARUTYUNYAN, G. G. HOVHANNISYAN, A. A. SARGSYAN, T. LIEHR, A. AL-RIKABI,

R. M. AROUTIOUNIAN

Proceedings of the YSU B: Chemical and Biological Sciences 2020 63-67

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*Article*

**Doxorubicin-induced translocation of mtDNA into the nuclear genome of human lymphocytes detected using a molecular-cytogenetic approach**

Tigran Harutyunyan, Ahmed Al-Rikabi, Anzhela Sargsyan, Galina Hovhannisyanyan, Rouben Aroutiounian,

Thomas Liehr

International Journal of Molecular Sciences 2020 1-11

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*Manual*

**Մարդու գենետիկայի հիմունքները**

Լիբր թոմաս, Հարությունյան Տիգրան, Հովհաննիսյան Գալինա

2020 170

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*Article*

**Analysis of copy number variations induced by ultrashort electron beam radiation in human leukocytes in vitro**

Tigran Harutyunyan, Galina Hovhannisyanyan, Anzhela Sargsyan, Bagrat Grigoryan, Ahmed H. Al-Rikabi,

Anja Weise, Thomas Liehr, Rouben Aroutiounian

Molecular Cytogenetics 2019 18 (1-6)

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*Article*

**Application of the comet assay, micronucleus test and global DNA methylation analysis in *Darevskia* lizards as a sentinel organism for genotoxic monitoring of soil pollution**

*Article*

**DNA Copy Number Variations as Markers of Mutagenic Impact**

Hovhannisyana Galina, Harutyunyan Tigran, Aroutiounian Rouben, Liehr Thomas

International Journal of Molecular Sciences 2019 1-19

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*Article*

**DNA damage and micronuclei in parthenogenetic and bisexual Darevskia rock lizards from the areas with different levels of soil pollution**

Anna Simonyan, Galina Hovhannisyana, Anzhela Sargsyan, Marine Arakelyan, Seyran Minasyan,

Rouben Aroutiounian

Ecotoxicology and Environmental Safety 2018 13-18

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*Article*

**Gender differences in DNA damage/repair after laser-generated ultrafast electron beam irradiation**

Babayan N, Grigoryan B, Hovhannisyana G, Tadevosyan G, Khondkaryan L, Grigoryan R, Sarkisyan N,

Aroutiounian R

International Journal of Radiology & Radiation Therapy 2018 85-86

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*Article*

**Micronuclei and what they can tell us in cytogenetic diagnostics**

Hovhannisyana Galina, Harutyunyan Tigran, Aroutiounian Rouben

Current Genetic Medicine Reports 2018 144-154

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*Article*

**Application of Crayfish *Astacus leptodactylus* for the Analysis of Water Genotoxicity in the Lake Sevan Basin**

A. E. Simonyan, A. A. Sargsyan, G. G. Hovhannisyana, N. S. Badalyan, S. H. Minasyan

JOURNAL OF WATER CHEMISTRY AND TECHNOLOGY 2018 367-369

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*Article*

**Dose-rate effect of ultrashort electron beam radiation on DNA damage and repair in vitro**

Nelly Babayan, Galina Hovhannisyana, Bagrat Grigoryan, Ruzanna Grigoryan, Natalia Sarkisyan,

Gohar Tsakanova, Samvel Haroutiunian, Rouben Aroutiounian

Journal of Radiation Research 2017 894-897

<https://academic.oup.com/jrr>

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*Article*

**ԲԵՏԱՅԻՆԻ ՀԱԿԱՍՈՒՏԱԳԵԼԱՅԻՆ ՀԱՏԿՈՒԹՅՈՒՆՆԵՐԻ ԳԼԱՀԱՏՈՒՄԸ KCL - 22 ԲԶԻԶՆԵՐՈՒՄ ԴՆԹ - ԿՈՍԵՏ ՍԵԹՈՂՈՎ**

Անժելա Սարգսյան, Աննա Սիմոնյան, Գալինա Հովհաննիսյան

ԵՊՀ ՌԻԳԸ գիտական հոդվածների ժողովածու 2017 137-141

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*Manual*

**Fluorescence in situ Hybridization (FISH) - Application Guide.PART V. INTERPHASE FISH. Comet-FISH**

Hovhannisyán G, Aroutiounian R

2017 6

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*Manual*

**Micronucleus FISH, Fluorescence In Situ Hybridization (FISH) Application Guide, Second Edition**

Galina Hovhannisyán, Tigran Harutyunyan, Thomas Liehr

2017 379-383

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*Article*

**Comparative analysis of individual chromosome involvement in micronuclei induced by mitomycin C and bleomycin in human leukocytes.**

Hovhannisyán G, Aroutiounian R, Babayan N, Harutyunyan T, Liehr T

Molecular Cytogenetics 2016 7

<https://molecularcytogenetics.biomedcentral.com/>

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*Article*

**Genotoxicity of Water Contaminants from the Basin of Lake Sevan, Armenia Evaluated by the Comet Assay in Gibel Carp (*Carassius auratus gibelio*) and Tradescantia Bioassays**

Simonyan A, Gabrielyan B, Minasyan S, Hovhannisyán G, Aroutiounian R

Bulletin of Environmental Contamination and Toxicology 2016 309-313

<http://www.springer.com/environment/pollution+and+remediation/journal/128>

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*Article*

**"Կենսաբանություն" առարկայից սովորողների գիտելիքների ընթացիկ գնահատման տեսակները Ա.Ֆ.Կարապետյան, Գ.Գ. Հովհաննիսյան, Ի.Վ. Շահազիզյան**

Բնագետ 2016 31-39

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*Article*

**Cell viability and DNA damage in MRC5 and HeLa cell lines after histone H1 knockout by CRISPR-Cas9 genome editing technology**

Hovhannisyán G, Aroutiounian R, Harutyunyan T, Babayan N

Proceedings of the YSU B: Chemical and Biological Sciences 2016 64-66

<http://www.ysu.am/science/hy/journals>

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*Manual*

**Գենետիկական թունաբանության հիմունքներ**

Հովհաննիսյան Գալինա

2016 72

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*Article*

**Influence of aflatoxin B1 on copy number variants in human leukocytes in vitro.**

Harutyunyan T, Hovhannisyán G, Babayan N, Othman MA, Liehr T, Aroutiounian R

Molecular Cytogenetics 2015 25; 5

<https://molecularcytogenetics.biomedcentral.com/>

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*Article*

**A New Case of a Complex Small Supernumerary Marker Chromosome: A Der(9)t(7;9)(p22;q22) due to a Maternal Balanced Rearrangement.**

Manvelyan M., Simonyan I., Hovhannisyán G., Aroutiounian R., Hamid A.B., Liehr Th.

*Article*

**Combined Genotoxic Effects of Aflatoxin B1, Ochratoxin A and Zearalenone in Rat Bone Marrow and Blood Leukocytes**

Harutyunyan Tigran, Karapetyan Anna, Hovhannisyan Galina, Aroutiounian Rouben

Korean Journal of Environmental Biology 2013 189-191

<http://www.ebr.or.kr/AboutUs/01.php>

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*Article*

**In vitro testing of cyto- and genotoxicity of new porphyrin water-soluble metal derivatives**

Gennadi Gasparyan, Galina Hovhannisyan, Robert Ghazaryan, Lida Sahakyan, Artak Tovmasyan,

Rusanna Grigoryan, Natalia Sarkissyan, Samvel Haroutiunian, Rouben Aroutiounian

International Journal of Toxicology 2007 497-502

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*Conference*

**DETECTION OF GENOTOXIC AND CLASTOGENIC EFFECTS OF SOILS POLLUTION IN ARMENIA WITH APPLICATION OF TRADESCANTIA (CLONE 02) TEST SYSTEM**

Atoyants A.L., Aghajanyan E.A., Avalyan R.E., Hovhanisyan G.G., Aroutiounian R.M.

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*Conference*

**ЭКОГЕНОТОКСИКОЛОГИЧЕСКОЕ ИССЛЕДОВАНИЕ БАСЕЙНА ОЗЕРА СЕВАН С ПРИМЕНЕНИЕМ РЕЧНЫХ РАКОВ (ASTACUS LEPTODACTYLUS) И ТРАДЕСКАНЦИИ**

А.Э. Симонян, Г.Г. Оганесян, Б.К. Габриелян, С.Г. МИНАСЯН, Т.А. Арутюнян, А.Л. Геворкян,

Р.М. Арутюнян

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*Conference*

**Изучение мутагенеза методами молекулярной цитогенетики.**

Арутюнян Р.М., Арутюнян Т.А., Симонян А.Э., Оганесян Г.Г.

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*Conference*

**Ecogenetic studies in Armenia.**

Aroutiounian R.M., Hovhannisyan G.G., Simonyan A.E.

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*Conference*

**PROTECTIVE EFFECTS OF SCHIFF BASE CYCLIC AMINO ACID DERIVATIVES AGAINST MYCOTOXINS GENO- AND CYTOTOXICITY**

Tigran HARUTYUNYAN, Galina HOVHANNISYAN, Nelli BABAYAN, Thomas LIEHR, Arsen ARAKELYAN,

Rouben AROUTIOUNIAN, Margarita MALAKYAN

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*Conference*

**Genetic effects: DNA radiation damage and repair**

R. Aroutiounian, G. Hovhannisyan, B. Grigoryan, G. Tsakanova, S. Haroutiunian, T. Harutyunyan,

N. Babayan

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*Conference*

**Genetic damage in bioindicator organisms and heavy metal content in ecogenotoxic studies**

Rouben Aroutiounian, Galina Hovhannisyan, Anna Simonyan

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Conference

**The genotoxic and cytotoxic effects of ochratoxin a and t-2 toxin in rats bone marrow and blood cells**

Harutyunyan Tigran, Hovhannisyan Galina, Babayan Nelli, Arakelyan Arsen, Aroutiounian Rouben

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Conference

**Оценка повреждений и репарации ДНК при облучении сверхкороткими импульсами ускоренных электронов.**

Арутюнян Р.М., Оганесян Г.Г., Григорян Б.А., Цаканова Г.В., Арутюнян С.Г., Арутюнян Т.А.,  
Бабаян Н.С.

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Conference

**Кинетика репарации ДНК и эпигенетические изменения при облучении сверхкороткими импульсами ускоренных электронов**

Арутюнян Р.М., Оганесян Г.Г., Григорян Б.А., Арутюнян Т.А., Бабаян Н.С.

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Conference

**Assessment of aquatic genotoxicity of the Lake Sevan basin, Armenia using natural bioindicators**

Anzhela Sargsyan, Anna Simonyan, Galina Hovhannisyan, Bardukh Gabrielyan, Rouben Aroutiounian

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Conference

**APPLICATION OF BIOINDICATORS FOR ASSESSMENT OF HEAVY METALS' GENETIC AND EPIGENETIC EFFECTS IN DIFFERENT REGIONS OF ARMENIA**

Sargsyan A, Hovhannisyan G., Simonyan A., Arakelyan M., Minasyan S., Aroutiounian R.

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Conference

**DOXORUBICIN-INDUCED MTDNA INSERTIONS IN NUCLEAR GENOME OF HUMAN LYMPHOCYTES**

Aroutiounian R, Hovhannisyan G, Sargsyan A, Al-Rikabi A, Liehr T, Harutyunyan T

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Conference

**Genetic effects of ultrashort pulsed electron beam irradiation - 7 years of joint experience**

Rouben Aroutiounian, Tigran Harutyunyan, Andrian Osipov, Natalya Vorobyeva, Galina Hovhannisyan,  
Anzhela Sargsyan, Bagrat Grigoryan, Samvel Haroutiounian, Thomas Liehr, Nelly Babayan

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Conference

**ԳԵՆԵՏԻԿԱԿԱՆ ԱՆԿԱՅՈՒՆՈՒԹՅԱՆ ԿԵՆՍԱՍԱՐԿԵՐՆԵՐԻ ԿԻՐԱՌՈՒՄԸ ՄԻՋԻՆ ԵՎ ԾԱՆՐ ԸՆԹԱՑՔՈՎ  
COVID-19 ՀԻՎԱՆԴՆԵՐԻ ԽՄԲԵՐՈՒՄ**

Հարությունյան Ռ., Հովհաննիսյան Գ., Սարգսյան Ա., Ստեփանյան Ն., Ղուկասյան Լ., Առաքելյան Ա.,  
Հարությունյան Տ.

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Conference

**GENOTOXICOLOGICAL AND MOLECULAR-GENETIC RESEARCH OF CORONAVIRUS IN ARMENIA**

Tigran Harutyunyan, Anzhela Sargsyan, Nara Stepanyan, Galina Hovhannisyan, Lilit Ghoukasyan,  
Arsen Arakelyan, Rouben Aroutiounian

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